

[4910-13-U]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [66 FR 18523 4/10/2001]

[Docket No. 2000-NM-157-AD; Amendment 39-12170; AD 2001-07-05]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 767 Series Airplanes Powered by General Electric or Pratt & Whitney Engines

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to certain Boeing Model 767 series airplanes powered by General Electric or Pratt & Whitney engines, that requires repetitive inspections to detect discrepancies of the aft-most fastener holes in the horizontal tangs of the midspar fitting of the strut, and corrective actions, if necessary. This AD also provides an optional terminating action for the repetitive inspections. These actions are necessary to prevent fatigue cracking in primary strut structure and reduced structural integrity of the strut, which could result in separation of the strut and engine. This action is intended to address the identified unsafe condition.

DATES: Effective May 15, 2001.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of May 15, 2001.

ADDRESSES: The service information referenced in this AD may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. This information may be examined at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: John Craycraft, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2782; fax (425) 227-1181.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an airworthiness directive (AD) that is applicable to certain Boeing Model 767 series airplanes powered by General Electric or Pratt & Whitney engines was published in the **Federal Register** on October 10, 2000 (65 FR 60124). That action proposed to require repetitive inspections to detect discrepancies of the aft-most fastener holes in the horizontal tangs of the midspar fitting of the strut, and corrective actions, if necessary. That action also proposed to provide for optional terminating action for the repetitive inspections.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received.

Request to Limit Area of Inspection or Give Credit for Previous Inspections

Several commenters request that the FAA revise paragraph (a) of the proposed AD to limit the area of the inspections to the two aft-most holes of the horizontal tangs of the midspar fitting of the strut, as shown in Boeing Service Bulletin 767-54A0101, Revision 1, dated February 3, 2000, rather than

requiring inspections of the four aft most holes. The commenters state that the two aft-most holes are the most susceptible to fatigue cracking because of the higher stresses in this area of the midspar fitting. The commenters conclude that, as long as the two aft-most holes are uncracked, the next two holes would be uncracked as well. One commenter suggests reducing the interval for the repetitive inspections of the two aft-most holes in lieu of expanding the inspection area to the four aft-most holes. Other commenters request that, if the FAA finds it necessary to require inspections beyond the area specified in the service bulletin, the initial inspection per paragraph (a) be deferred to 1,500 flight cycles if inspections of the two aft-most holes have been accomplished before the effective date of this AD per the service bulletin.

The FAA partially concurs with the commenters' requests. While, in theory, if the two aft-most holes are not cracked, the next row of holes should not be cracked either, the FAA has not found this to be the case, as discussed in the notice of proposed rulemaking (NPRM). On certain Model 747 series airplanes, which have fittings and loading conditions similar to those found on the Model 767 series airplanes subject to this AD, the aft-most row of fasteners of the midspar fittings was not cracked, but the next row of fasteners was. Based on this experience, the FAA does not concur with the commenters' request to reduce the inspection interval in lieu of requiring inspections of both rows of fasteners.

However, the FAA does concur that the initial compliance time for the inspection of the four aft-most fasteners can be extended for airplanes on which the two aft-most fasteners have been inspected per the service bulletin before the effective date of this AD. The FAA finds that, for these previously inspected airplanes only, the compliance time for paragraph (a) of this AD can be extended from 600 flight hours to 1,500 flight hours. Accordingly, a new paragraph (b) has been added to this final rule and subsequent paragraphs have been reordered.

Request to Reference Revised Service Information

One commenter questions whether the FAA will revise the proposed rule to reference a new revision of the service bulletin. The commenter points out that the proposed requirement to inspect the four aft-most fasteners is a difference from the service bulletin and questions whether the FAA will provide an alternative method of compliance (AMOC) for this requirement, or whether a local approved authority will have to carry out the proposed extra work until a new revision of the service bulletin is approved.

The FAA does not concur that any change to this final rule is necessary in this regard. The FAA cannot revise this final rule to reference a new revision of the service bulletin because the FAA has received no such revision. In response to the commenter's question about issuance of an AMOC, no AMOC is required for the requirements of this AD, because the requirements of an AD take precedence over the procedures listed in a service bulletin. No change to the final rule is necessary in this regard.

Request to Approve AMOC

One commenter requests that the FAA revise the proposed rule to approve the use of GE RTV108 sealant as an alternative to the BMS sealant specified in the service bulletin. According to the commenter, the airplane manufacturer has approved the use of GE RTV108 sealant. The commenter also states that fasteners on the inboard fitting aft of the aft vapor barrier do not need sealant. The commenter further notes that it has requested that Boeing revise its service bulletin to reflect these changes.

The FAA does not concur with the commenter's request to revise the final rule to approve the use of an alternative sealant and to specify that sealant does not need to be applied to certain fasteners. The service bulletin has not yet been revised, and FAA has not received any technical justification for the changes requested by the commenter. However, if the commenter can provide data that shows that an acceptable level of safety can be achieved through the methods of compliance it describes, the commenter may request approval of an AMOC in accordance with paragraph (e) of this AD. No change to the final rule is necessary in this regard.

Request to Revise Cost Impact Information

One commenter states that the cost impact in the NPRM is totally unrealistic because it does not account for the time to gain access to the inspection area or to return the airplane to service.

The FAA does not concur with what it infers is a request to revise the cost estimate. The FAA stated in the "Cost Impact" section of the NPRM that, "The cost impact figures discussed in AD rulemaking actions represent only the time necessary to perform the specific actions actually required by the AD."

These figures typically do not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions.” The FAA’s position on this matter has not changed since issuance of the NPRM. Thus, no change to the final rule is necessary in this regard.

Conclusion

After careful review of the available data, including the comments noted above, the FAA has determined that air safety and the public interest require the adoption of the rule with the changes previously described. The FAA has determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

Cost Impact

There are approximately 636 Model 767 series airplanes of the affected design in the worldwide fleet. The FAA estimates that 235 airplanes of U.S. registry will be affected by this AD.

It will take approximately 1 work hour per airplane to accomplish the required detailed visual inspection, at an average labor rate of \$60 per work hour. Based on these figures, the cost impact of this inspection on U.S. operators is estimated to be \$14,100, or \$60 per airplane, per inspection cycle.

It will take approximately 3 work hours per airplane to accomplish the required eddy current inspection, at an average labor rate of \$60 per work hour. Based on these figures, the cost impact of this inspection on U.S. operators is estimated to be \$42,300, or \$180 per airplane, per inspection cycle.

The cost impact figures discussed above are based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted. The cost impact figures discussed in AD rulemaking actions represent only the time necessary to perform the specific actions actually required by the AD. These figures typically do not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions.

Regulatory Impact

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this action (1) is not a “significant regulatory action” under Executive Order 12866; (2) is not a “significant rule” under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption “ADDRESSES.”

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by adding the following new airworthiness directive:

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "av-info.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2001-07-05 BOEING: Amendment 39-12170. Docket 2000-NM-157-AD.

Applicability: Model 767 series airplanes, certificated in any category, as listed in Boeing Service Bulletin 767-54A0101, Revision 1, dated February 3, 2000.

Note 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (e) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent fatigue cracking in primary strut structure and reduced structural integrity of the strut, which could result in separation of the strut and engine, accomplish the following:

Repetitive Inspections

(a) Except as provided by paragraph (b) of this AD, before the accumulation of 10,000 total flight cycles, or within 600 flight cycles after the effective date of this AD, whichever occurs later: Accomplish the inspections required by paragraph (a)(1) or (a)(2) of this AD, as applicable.

(1) Perform a detailed visual inspection of the four aft-most fastener holes in the horizontal tangs of the midspar fitting of the strut to detect cracking, in accordance with Part 1, "Detailed Visual Inspection," of the Accomplishment Instructions of Boeing Service Bulletin 767-54A0101, Revision 1, dated February 3, 2000. If no cracking is detected, repeat the inspection thereafter at the applicable intervals specified in Table 1, "Reinspection Intervals for Part 1 - Detailed Visual Inspection" included in Figure 1 of the service bulletin.

Note 2: For the purposes of this AD, a detailed visual inspection is defined as: "An intensive visual examination of a specific structural area, system, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at intensity deemed appropriate by the inspector. Inspection aids such as mirror, magnifying lenses, etc., may be used. Surface cleaning and elaborate access procedures may be required."

(2) Perform a high frequency eddy current inspection of the four aft-most fastener holes in the horizontal tangs of the midspar fitting of the strut to detect discrepancies (cracking, incorrect fastener hole diameter), in accordance with Part 2, "High Frequency Eddy Current (HFEC) Inspection," of the Accomplishment Instructions of the service bulletin. Accomplish the requirements specified in paragraph (a)(2)(i) or (a)(2)(ii) of this AD, as applicable; and repeat the inspection thereafter at the applicable intervals specified in Table 2, "Reinspection Intervals for Part 2 - HFEC Inspection" included in Figure 1 of the service bulletin.

(i) If no cracking is detected and the fastener hole diameter is less than or equal to 0.5322 inch, rework the hole in accordance with Part 3 of the Accomplishment Instructions of the service bulletin.

(ii) If no cracking is detected and the fastener hole diameter is greater than 0.5322 inch, accomplish the requirements specified in either paragraph (c)(1) or (c)(2) of this AD.

(b) For airplanes on which the two aft-most fasteners have been inspected in accordance with Boeing Service Bulletin 767-54A0101, Revision 1, dated February 3, 2000, prior to the effective date of this AD: Perform the initial inspection of the four aft-most fasteners in accordance with paragraph (a) of this AD before the accumulation of 10,000 total flight cycles, or within 1,500 flight cycles after the effective date of this AD, whichever occurs later.

Corrective Actions

(c) If any cracking is detected after accomplishment of any inspection required by paragraph (a) of this AD, before further flight, accomplish the requirements specified in either paragraph (c)(1) or (c)(2) of this AD.

(1) Accomplish the terminating action specified in Part 4 of the Accomplishment Instructions of Boeing Service Bulletin 767-54A0101, Revision 1, dated February 3, 2000. Accomplishment of this paragraph terminates the requirements of this AD.

(2) Replace the midspar fitting of the strut with a serviceable part, or repair in accordance with a method approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA. Repeat the applicable inspection thereafter at the applicable time specified in paragraph (a)(1) or (a)(2) of this AD.

(d) If any discrepancies (cracking, incorrect fastener hole diameter) are detected during any inspection required by paragraph (a) of this AD, for which the service bulletin specifies that the manufacturer may be contacted for disposition of those repair conditions: Before further flight, accomplish the corrective actions (including fastener hole rework and/or midspar fitting replacement) in accordance with a method approved by the Manager, Seattle ACO; or in accordance with data meeting the type certification basis of the airplane approved by a Boeing Company Designated Engineering Representative who has been authorized by the Manager, Seattle ACO, to make such findings. For a method to be approved by the Manager, Seattle ACO, as required by this paragraph, the Manager's approval letter must specifically reference this AD.

Alternative Methods of Compliance

(e) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Seattle ACO. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Seattle ACO.

Note 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

Special Flight Permits

(f) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(g) Except as provided by paragraphs (c)(2) and (d) of this AD, the actions shall be done in accordance with Boeing Service Bulletin 767-54A0101, Revision 1, dated February 3, 2000. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. Copies may be inspected at the FAA, Transport

Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

Effective Date

(h) This amendment becomes effective on May 15, 2001.

FOR FURTHER INFORMATION CONTACT: John Craycraft, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2782; fax (425) 227-1181.

Issued in Renton, Washington, on April 2, 2001.

Donald L. Riggin, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.